Abstract of the disclosure

A method for controlling CD of etch process defines difference between designed dimension and etched dimension as dimensional displacement and defines target value of the dimensional displacement. A plurality of samples are prepared in each group having different exposure ratios. The plurality of samples of each group are etched until etch end point is detected and then over-etched for uniform time interval after detecting the etch end point. Using etch end point and over-etch time, correlation function of the over-etch time to the etch end point time is determined and the over-etch time to the etch end point is determined using the correlation function.